

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method of producing a genetically modified plant characterized as having dwarf adult stature, said method comprising:

(a) contacting a plant cell with a vector containing an exogenous nucleic acid sequence comprising at least one structural gene encoding a BAS1 polypeptide, said gene being operably associated with a regulatory sequence that causes overexpression of the gene, to obtain a transformed plant cell, wherein said BAS1 polypeptide is a cytochrome P450 which converts an active brassinosteroid to an inactive brassinosteroid;

(b) producing a plant from said transformed plant cell; and

(c) selecting a plant exhibiting said dwarf adult stature.

Claim 2 (Original): The method of Claim 1, wherein the regulatory sequence comprises a constitutive promoter or an inducible promoter.

Claim 3 (Original): The method of Claim 1, wherein the nucleic acid further comprises a selectable marker.

Claim 4 (Original): The method of Claim 1, wherein the plant is a dicotyledonous plant, or a monocotyledonous plant.

Claim 5 (Original): The method of Claim 1, wherein said BAS1 polypeptide has the amino acid sequence of SEQ ID NO:2.

Claim 6 (Original): The method of Claim 1, wherein said exogenous nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 1.

Claim 7 (Original): The method of Claim 1, wherein said genetically modified plant exhibits green foliage that is darker than a wild-type plant.

Claim 8 (Original): The method of Claim 1, wherein the contacting is by physical means.

Claim 9 (Original): The method of Claim 1, wherein the contacting is by chemical means.

Claim 10 (Original): The method of Claim 1, wherein the plant cell is selected from the group consisting of protoplasts, gamete producing cells, and cells which regenerate into whole plants.

Claim 11 (Original): The method of Claim 1, wherein said nucleic acid is contained in a T-DNA derived vector.

Claim 12 (Currently Amended): A genetically modified plant comprising at least one exogenous nucleic acid sequence encoding an BAS1 polypeptide in its genome ~~or at least one regulatory sequence that modifies expression of an endogenous *bas1* gene~~, wherein the plant is characterized as having a dwarf adult stature, and wherein said BAS1 polypeptide is a cytochrome P450 which converts an active brassinosteroid to an inactive brassinosteroid.

Claim 13 (Original): The plant of Claim 12, wherein the plant contains multiple exogenous nucleic acid sequences encoding a BAS1 polypeptide.

Claim 14 (Original): The plant of Claim 12, wherein the BAS1 polypeptide has the amino acid sequence of SEQ ID NO:2.

Claim 15 (Original): The plant of Claim 12, wherein the plant comprises darker green leaves in adult plants in comparison to green leaves in a wild-type adult plant.

Claim 16 (Original): The plant of Claim 12, wherein the nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 1.

Claim 17 (Original): The plant of Claim 12, wherein the exogenous nucleic acid sequence is operably associated with a regulatory nucleic acid sequence.

Claim 18 (Original): The plant of Claim 17, wherein the regulatory nucleic acid sequence comprises a promoter.

Claim 19 (Original): The plant of Claim 18, wherein the promoter is a constitutive promoter.

Claim 20 (Original): The plant of Claim 18, wherein the promoter is an inducible promoter.

Claim 21 (Original): The plant of Claim 12, wherein the plant is a dicotyledonous or a monocotyledonous plant.

Claim 22 (Currently Amended): A seed that germinates into a plant comprising at least one exogenous *basl* nucleic acid sequence in its genome; wherein the plant is characterized as having a dwarf adult stature, wherein said exogenous *basl* nucleic acid sequence encodes a cytochrome P450 enzyme which converts an active brassinosteroid to an inactive brassinosteroid.

Claim 23 (Original): The seed of Claim 22, wherein the plant comprises multiple exogenous nucleic acid sequences encoding a BAS1 polypeptide.

Claim 24 (Original): The seed of Claim 22, wherein the BAS1 polypeptide has the amino acid sequence of SEQ ID NO:2.

Claim 25 (Original): The seed of Claim 22, wherein the plant comprises darker green leaves in adult plants in comparison to green leaves in a wild-type adult plant.

Claim 26 (Original): The seed of Claim 22, wherein the *basl* nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 1.

Claim 27 (Original): The seed of Claim 22, wherein the *basl* nucleic acid sequence is operably associated with a regulatory nucleic acid sequence.

Claim 28 (Original): The seed of Claim 27, wherein the regulatory nucleic acid sequence comprises a promoter.

Claim 29 (Original): The seed of Claim 28, wherein the promoter is a constitutive promoter.

Claim 30 (Original): The seed of Claim 28, wherein the promoter is an inducible promoter.

Claim 31 (Original): The seed of Claim 22, wherein the plant is a dicotyledonous plant.

Claim 32 (Original): The seed of Claim 22 wherein the plant is a monocotyledonous plant.

Claim 33 (New): The method of Claim 1 wherein the structural gene is at least 80% identical to SEQ ID NO:1.

Claim 34 (New): The plant of Claim 1 wherein the structural gene encodes a protein at least 80% identical to SEQ ID NO:2.

Claim 35 (New): The method of Claim 1 wherein the structural gene hybridizes to the oligonucleotide of SEQ ID NO:1, under wash conditions of 0.2 x SSC, 0.1% SDS at 42° C.

Claim 36 (New): The plant of Claim 12 wherein the exogenous nucleic acid sequence is at least 80% identical to SEQ ID NO:1.

Claim 37 (New): The plant of Claim 12 wherein the exogenous nucleic acid sequence encodes a protein at least 80% identical to SEQ ID NO:2.

Claim 38 (New): The plant of Claim 12 wherein the exogenous nucleic acid sequence hybridizes to the oligonucleotide of SEQ ID NO:1, under wash conditions of 0.2 x SSC, 0.1% SDS at 42° C.

Claim 39 (New): The seed of Claim 22 wherein the exogenous nucleic acid sequence is at least 80% identical to SEQ ID NO:1.

Claim 40 (New): The seed of Claim 22 wherein the exogenous nucleic acid sequence encodes a protein at least 80% identical to SEQ ID NO:2.

Claim 41 (New): The seed of Claim 22 wherein the exogenous nucleic acid sequence hybridizes to the oligonucleotide of SEQ ID NO:1, under wash conditions of 0.2 x SSC, 0.1% SDS at 42° C.